Tetrapotassium Pyrophosphate (TKPP)

Chemical Formula: $K_4P_2O_7$
CAS Number: 7320-34-5

DESCRIPTION

Tetrapotassium Pyrophosphate (TKPP) is a highly alkaline, water-soluble inorganic phosphate salt supplied as a white powder or granular material. It is widely used as a sequestrant, buffering agent, dispersing agent, emulsifier and chelating agent in industrial cleaning formulations, water treatment chemicals, detergents, metal surface treatment, ceramics, textiles, food processing, and specialty chemical applications.
TKPP provides excellent calcium and magnesium ion sequestration, improves cleaning efficiency, enhances dispersion stability and assists in pH control in alkaline systems.

KEY FEATURES

- High purity grade (≥98% TKPP)
- Excellent sequestration and chelation properties
- Effective buffering and pH control
- Highly water soluble
- Low impurity levels
- Suitable for a wide range of industrial applications

APPLICATIONS

- Industrial and institutional cleaning formulations
- Detergents and dishwashing products
- Water treatment chemicals
- Metal surface treatment and electroplating
- Ceramic processing
- Textile processing
- Oilfield chemicals
- Dispersant formulations
- Specialty chemical manufacturing
- Food processing applications (food grade grades only)

TYPICAL SPECIFICATIONS

Property	Specification
Appearance	White powder or granules
TKPP Assay ($K_4P_2O_7$)	≥98.0%
Potassium Oxide (K_2O)	≥45.0%
Phosphorus Pentoxide (P_2O_5)	≥42.0%
pH (1% solution)	10.0–11.0
Water Insoluble Matter	≤0.10%
Chloride (Cl)	≤0.45%
Iron (Fe)	≤50 mg/kg
Lead (Pb)	≤5 mg/kg
Arsenic (As)	≤3 mg/kg

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LIMITED WARRANTY INFORMATION.
PLEASE READ CAREFULLY.

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This document is subject to revision without notice as new data becomes available.

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PACKAGING

Typically supplied in 25 kg bags, with 500 kg and 1,000 kg bulk bags available for larger volume requirements. Alternative packaging options are available upon request.

STORAGE & HANDLING

Store in a cool, dry, well-ventilated area in tightly sealed original packaging. Protect from moisture and humidity as the product is hygroscopic and may absorb atmospheric moisture during storage.

SHELF LIFE

24 months when stored in the original unopened packaging under recommended storage conditions.

SAFETY

Refer to the Safety Data Sheet (SDS) for detailed safety, handling, and regulatory information. Use appropriate personal protective equipment when handling.